(1) $\Psi(\mathbf{r}, t)$

$\times \hat{U}_{r, \frac{\tau}{2}}$

(2) $\Psi(\mathbf{r}, t + \tau/2)$ → $\mathscr{F}$ → $\Psi(\mathbf{k}, t)$

$\times \hat{U}_{p, \tau}$

(3) $\Psi'(\mathbf{r}, t + \tau/2)$ ← $\mathscr{F}^{-1}$ ← $\Psi(\mathbf{k}, t + \tau)$

$\times \hat{U}_{r, \frac{\tau}{2}}$

(4) $\Psi(\mathbf{r}, t + \tau)$